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VOLUME XXVI OCTOBER, 1927 NUMBER 7

IN THE BACKGROUND OF THE TURMOIL IN CHINA

WALLACE W. ATWOOD
President of Clark University

Behind the scenes of the present civil war in China a remarkable drama is being enacted. Changes are taking place in the ways of thinking, in the literature, in all of the educational work, in the economic and political organizations of the nation, and in international relations.

THE ANCIENT CHINESE CULTURE

There never has been in the history of the world a more remarkable renaissance than the one now in progress in China. An ancient culture and civilization, one that for centuries was indeed superior to anything on this earth, is evolving from within, a new culture and a new civilization. Long before the opening of the Christian era, the Chinese were manufacturing beautiful works in bronze, and they were familiar with silk culture 2,000 years before the birth of Christ. They discovered the art of making paper about 100 A.D. At the time of the Norman Conquest and of the Crusades, the Chinese were printing with movable type, painting with remarkable skill, and making beautiful works of porcelain. They invented gunpowder in 700 A.D. and the compass in 1100 A.D. They abandoned the feudal system fully 2,000 years ago and evolved a rather simple type of government in which the family was the unit and the local community often defined the sphere of interest of the family group. They were a peace loving home folk and failed to develop a strong national consciousness.

The educated group among the Chinese evolved a literature and a religious culture. They studied the classics in their own language and many of them, after passing thru a series of most exacting examinations, came to hold government positions. Millions of the

Chinese became farmers, and used a part of their time in home industries. Thousands became craftsmen or artists. Theirs was a culture where the scholar ranked highest, the farmer second, the craftsman third, the tradesman fourth and the military man fifth. They have always been pre-eminently a peace loving people and never aggressive in their dealings with the other nations of the world.

Even today there is much of the primitive culture represented in the life of this nation. Spinning wheels and looms, such as we

FIG. 1. Hong Kong, a midnight constellation in the Orient. This great metropolis is built upon the slope of a rocky island just off the coast of China. It is a British possession, but there are many times more Chinese people living there than British.

find in the attics of New England, are yet in use thruout the rural districts of China. In the villages not yet affected by foreign merchants, the Chinese are busily engaged as craftsmen, carving ivory or wood, and making pottery or porcelain or lacquer work. They are manufacturing silk or cotton cloth, or engaged in embroidery work or rug making.

A RENAISSANCE IN LEARNING

But in this nation and emanating chiefly from those who have been educated in the universities of this country or the countries of western Europe, there are movements under way that are bound to result in most significant changes. These people have abandoned their ancient system of education, which consisted in large part in memorizing of Chinese classics, for the study of western science.

In the universities, many of them endowed and conducted by the Chinese, the students are at work in the laboratories of physics, chemistry, and biology, carrying out the same experiments which the college students of this country are performing. They are adopting a new scientific scholarship.

THE LANGUAGE DIFFICULTY

In this renaissance of learning, Hu Shih, a young Chinese scholar, has played a conspicuous part. He boldly recommended the abandonment of the ancient language known as "ku wen" and the use of the spoken language in written form. "Ku wen" was a language which no one spoke. It has been dead for at least 2000

FIG. 2. General view of the waterfront at Shanghai. In this great seaport, the tons of freight transferred each year exceed in number those transferred in any other Oriental port. From a commercial standpoint it is the New York of China; from a social standpoint it is often referred to as the Paris of China.

years. It was a beautiful but a lifeless language, a classic. "Pai hua" or the spoken language is now being used in the schools of China and this change has virtually brought about a literary revolution. It has remade the school text and the school life of millions of young Chinese people. Their work has been made easier than the work could ever have been for their fathers. It was necessary to know tens of thousands of characters to write the "ku wen" language, but everyone in China has a "pai hua" vocabulary and with relatively little instruction can be taught to write that language and to read it. "The Thousand-Character Movement" which James Yen, a Yale graduate, had adopted in his remarkable work in mass education has been of great help in leading those who had never had any schooling to a knowledge of reading and writing.

"Jimmy" Yen's mass education movement is sweeping over the country with great rapidity. It was not identified with any faction,

or with any particular section of the country. His volunteer teachers now numbering thousands have enrolled in their classes more than four million students. These students range in age from fifteen years to fifty-five.

In Europe, probably fully 90 per cent of the people of any one country cannot understand the language of the people of any other country. In China most of the people who have lived all of their

FIG. 3. Chinese peasant woman grinding millet. The windbreak in the background is made of millet stalks.

lives in one province cannot understand the language used in another province of their own country. As the mass education movement proceeds, this condition will be gradually changed and it is possible that in time one language will be used thruout China. Then there will be in eastern Asia, the largest aggregation of people in the world who can understand each other.

This change in the written language of the Chinese people has led them to boldly question many of their old customs. Dr. Hu Shih frankly admits that the youth of China are today questioning even Confucianism, Christianity, the marriage customs, and many other long established habits among their people.

THE INTRODUCTION OF WESTERN INSTITUTIONS

The Chinese have established technical schools, public libraries, normal schools, higher normal schools, and at least eight government universities. All of this indicates that in the background of the turmoil which we have reported to us in the daily press, there is a great renaissance in progress in the thinking and in the education of the Chinese people.

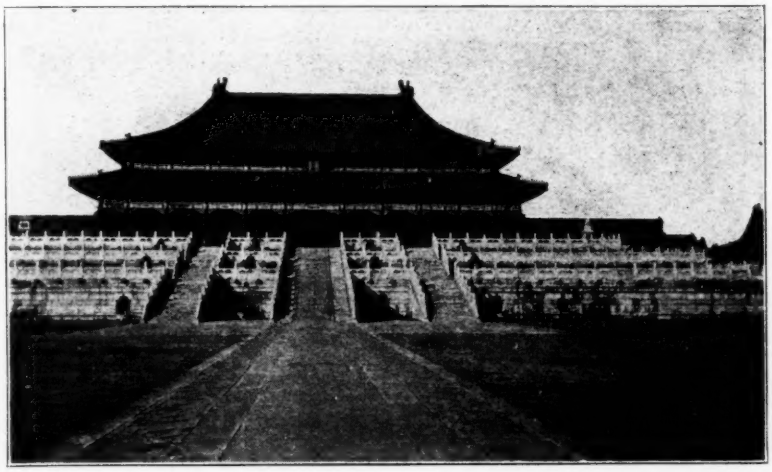

FIG. 4. The main auditorium in the Forbidden City of Peking. Here the Emperor held court, giving audiences to the most distinguished guests of the nation. It is one of the largest wooden buildings in the world. The roof is of yellow tile. The stairways and the balustrades are of white marble. Today this building is used as a museum, in which are stored the art treasures of the former Emperors.

But we may go further. The Chinese have already established modern industries for the manufacture of cotton and silk. They have a Geological Survey organized, and under the direction of this national service, the mineral resources of the nation are being studied and mapped. An educational committee in Peking is endeavoring to protect and preserve the remarkable works of art in the Forbidden City; a Famine Relief Committee is at work educating the rural communities in ways whereby they may prevent floods and thus avoid famines. Publications are now coming from their own presses. Over one thousand daily, weekly, and monthly journals are published by the Chinese for their own people.

IMPORTANCE OF FOREIGN TRADE

They appreciate that they have developed a large share of the foreign trade of the world. During the last fourteen years, according to statistics from a British source, the foreign trade of Asia has increased 36 per cent; that of North America has increased 37 per cent, but the foreign trade of Europe has decreased 11 per

FIG. 5. Harbor scene at Hong Kong. The boats that are covered are commonly used as homes.

cent. Last year, the Chinese bought from the United States $129,000,000 worth of goods. That was an increase of 12 per cent over the purchases which they made from us in 1925. During 1926, they exported to the United States over $172,000,000 worth of goods. That was a decrease from the amount shipped to us in 1925, but that decrease was due to the unsettled economic conditions within their own country. Silk and silk products made up $55,000,000 worth of the goods which they shipped to us. Furs and goat skins, wool-oil, and tin are among the leading exports from China to the United States. Shanghai and Hongkong now hold important places among the leading ports of the world in the total tonnage of goods transferred at their harbors.

DEVELOPMENT OF NATIONAL CONSCIOUSNESS

In the midst of all the changes in China, in methods of thinking, in the educational work, in the trade and industries, there is developing in the minds of many a new and stronger national consciousness. The people of China who have become acquainted with the progress that has been made in the other countries of the world recognize the necessity of reorganization in their country of the form of government, of their internal system of taxes, of the tariff regulations, of foreign trade, and of most of their international relations. They are now more intelligently conscious than any foreigners of the many sided nature of the reformation thru which they are passing. They are more intelligently conscious than foreign people of their own internal or domestic problems. They recognize better than other people the magnitude of their present undertakings and the patience that must be used among themselves in bringing about the many necessary revolutionary changes.

THE AWAKENING OF A STRONG PEOPLE

There is no conquering of the Chinese. Many people have tried that in the past and they have been assimilated. In time, they have become Chinese. Any who attempt conquest in the future, are in danger of the same fate. The Chinese have strong characters and conspicuously strong personalities. Think of four hundred and thirty-six million people in one nation; that is about one-fourth of the population of the world, and they are essentially all of one race. There is no such aggregation of people with so much in common anywhere else in this world. They equal in numbers the entire population of Europe. Remember, also, that about 90 per cent of the Chinese people are farmers and most of them own their own land. They are capitalists not likely to become communists. They have never been committed to a strong central government. They are not likely to adopt state socialism. No one within or without China can predict what is coming, but the drama is proceeding rapidly.

In the last fifty years, Japan has accomplished a remarkable reformation. China is now in the process of change. It is experiencing a renaissance and in its own way will evolve from within a new culture and a new civilization.

Dr. John Dewey wrote a few years ago, "To the outward eye, roaming in search of the romantic and picturesque, China is likely to prove a disappointment. To the eye of the mind, it represents the most enthralling drama now anywhere enacting."

CO-OPERATION BETWEEN EAST AND WEST

It is enacting a drama which will bring about a reorganization of economic and commercial relations within the country and with the other countries of the world. It is certain to play an important part in the economic affairs of the world. As time passes, it may make important contributions to education and to modern science. China should now have the sincere sympathy of all intelligent, liberty-loving people. It is passing thru a stage of remarkable internal development. It is endeavoring to make the necessary readjustments in its own civilization so that it may co-operate and compete with the civilization of the West. In a very true sense, western civilization is to blame for the revolutionary changes that are taking place in China today. China's history leads us to expect that it will strive for the establishment of peace and good-will among the people of the world.

SPANISH ORE FOR EUROPEAN STEEL

W. O. BLANCHARD
University of Illinois

For over half a century Spanish iron ores have occupied a pivotal position in the iron and steel industry of western Europe. This importance has not been due to the size of their output, for in normal pre-war times Spain ranked only fourth[1] among European iron ore producers. Neither has it been due to the size of the reserves, in which respect it occupied an even lower position (fifth, in fact). Nor again can its importance be attributed to the size of the local iron and steel industry to which it gave rise, for that has been very modest indeed.[2]

On the contrary, the significance of Spain's iron ores has been mainly international rather than national, European, rather than

[1] The territorial readjustments as a result of the war have placed Spain 3rd among European iron ore producers, Germany being shifted to 4th place

[2] Even among the minerals mined in Spain iron ore ranked second to coal until 1921. In 1922 and '23 it held 4th place. In 1921 the coal output was valued at almost five times that of the iron ore

Spanish. True, the iron mining industry furnishes employment to some 24,000 native laborers; somewhat less than 10 per cent of the ore output is worked over in local furnaces having an annual production of some half million tons of pig iron, and various taxes on the industry yield a considerable revenue to the Spanish treasury. To an extraordinary degree, however, the exploitation of the iron deposits has been due to *foreign* enterprise and capital; exportation has been in *foreign* bottoms; their destination, *foreign* ports, and their manufacture in *foreign* steel and iron centers. Figure 1 shows the relation of production to the export of iron ore and the manufacture of pig iron and brings out very strikingly the relation of ore exports to ore production. The manufacture of pig iron, on the other hand, has been fairly constant tho using only a small fraction of the ore output.

The international importance of these ores rests chiefly upon the fact that (1) they are of exceptionally high quality and that (2) they are located close to the seaboard. Of secondary importance are the facts that (1) there is a scarcity of coal suited for metallurgical coke in Spain[3] and that (2) the local market for iron and steel is comparatively limited.

Spanish Ores of High Grade

The two great iron and steel centers of western Europe are located near iron ores of comparatively low grade. The ores of Great Britain average only about 30 per cent iron; those of Lorraine, upon which Germany, France, Belgium and Luxemburg largely depend, are but little better—about 33 per cent.[4] The ores exported from Spain, on the other hand, have an average iron content of 50 per cent. Furthermore, they are comparatively free from the objectionable impurities—phosphorus and sulphur. The Lorraine ores average from 1.5 to 2.0 per cent phosphorus as compared with only .01 to .025 per cent for the Spanish ore. The iron ore deposits of Spain thus include one of the few great European sources of Bessemer ores.

[3] All Spanish iron and steel manufacture is produced with imported coal

[4] The lower grade Lorraine ores are smelted locally so that those shipped to Belgium, northern France and Westphalia average 34-38 per cent

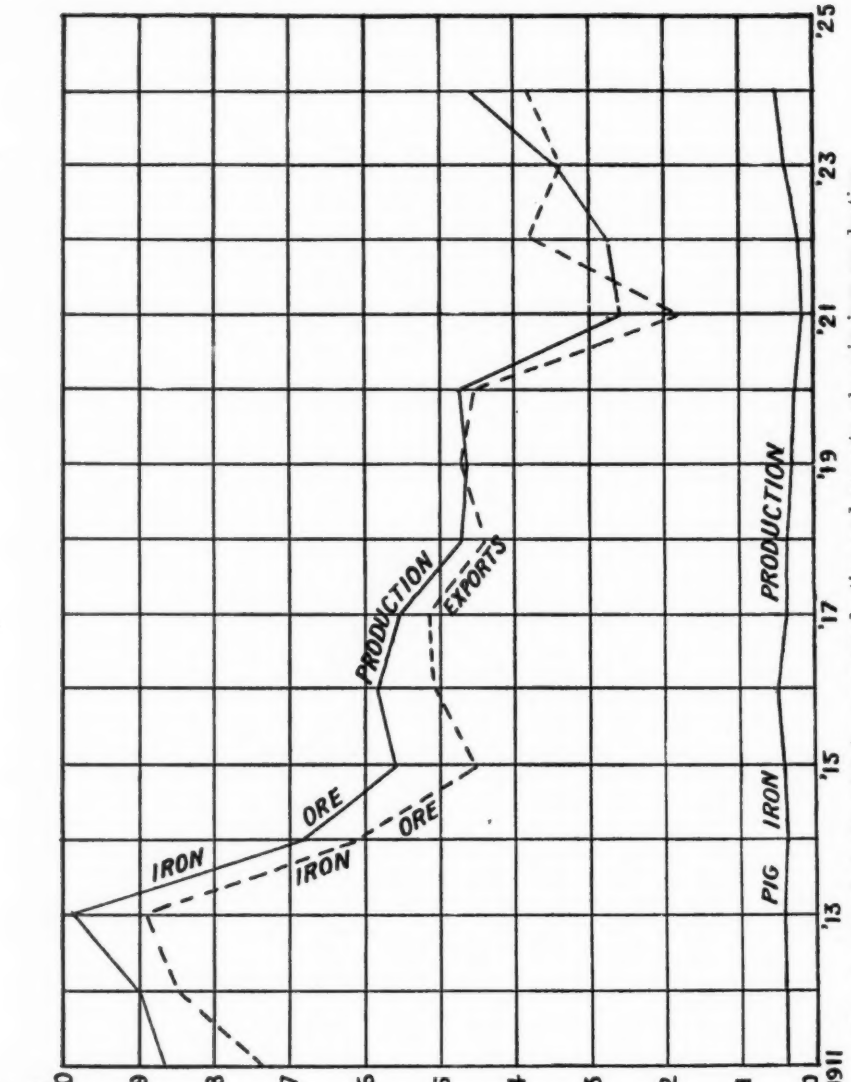

FIG. 1. Trends in Spanish iron ore production and exports, also pig iron production.

SPANISH ORES ACCESSIBLE TO THE SEABOARD

It will be seen from Figure 2, that the important producing sections of the nation are distributed about the rim of the peninsula.

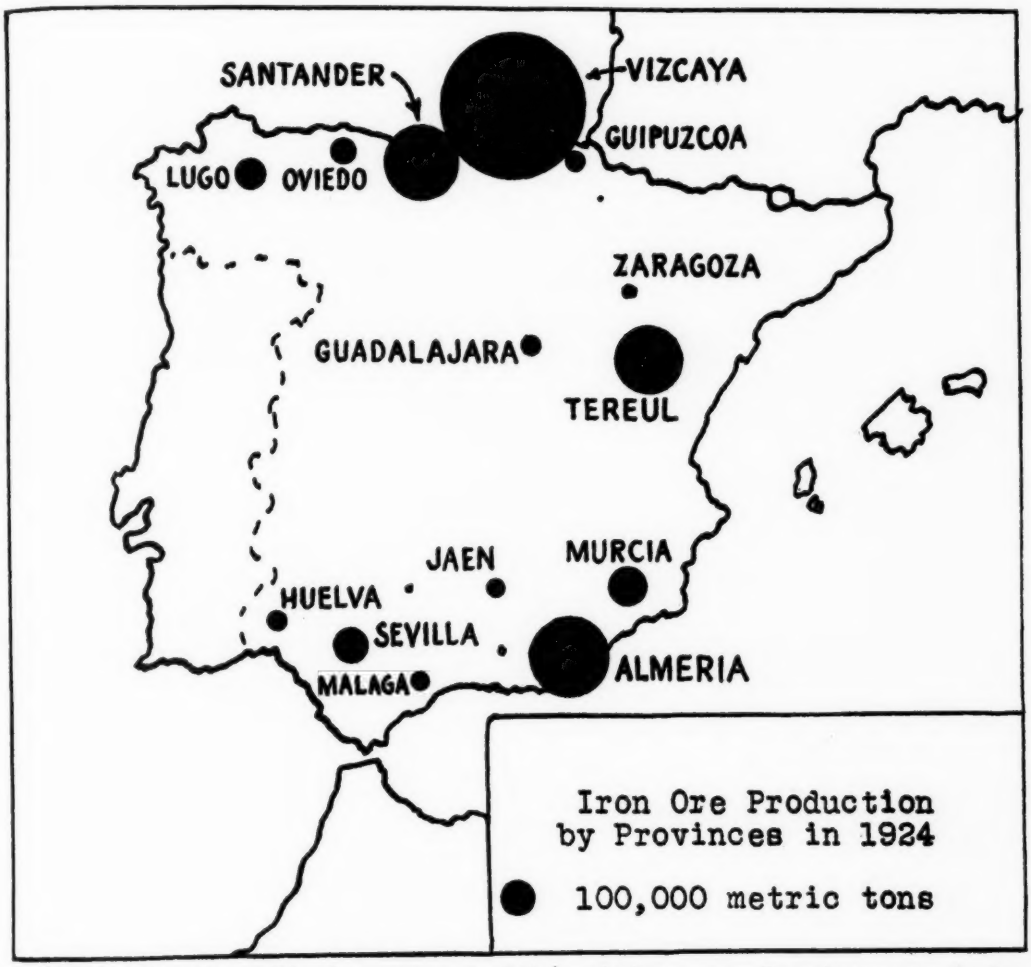

FIG. 2. Note the peripheral arrangement of the producing areas. Dependence upon foreign markets has made the factor of accessibility to coastal ports of prime importance.

Since most of the mines are located above an elevation of 1,500 feet there is but a short gravity haul to the seaboard. The location is especially fortunate for the deposits of the Cantabrian region which includes the provinces of Vizcaya, Santander and Oviedo inasmuch as they are advantageously placed for the English and German steel centers. This northern group accounts normally for

about two-thirds of the total national output, while approximately one-fourth is produced by the mines in the south located along the coast eastward from Gibraltar.

BILBAO

The center of economic gravity of the iron industry of Spain lies in this northern area with Bilbao as its main focus. It is the center not only of the mines but also of the metallurgical industries which are based upon the ores. The city is the greatest exporter of iron ore on the European mainland and as a result of its mineral interests it is said to have become the wealthiest community of its size on the continent. Tho the district immediately tributary to it possesses only about one-fourth of the mines in Spain, it accounts for almost one-half of the total ore output. From Bilbao alone there is shipped almost 40 per cent of the total Spanish iron ore exports.

The port is located on the navigable Nervion, seven miles from the mouth in the midst of the mines, yet accessible by deep water to ocean going vessels. Access to the interior mining region is, however, rendered difficult by the rough country, so that cheap transportation from mines to the port is one of the major problems. In addition to the loading facilities at Bilbao some twenty-five ore tipples are scattered along the left bank of the river between that port and the sea and thence along the coast as far west as Santander. From Bilbao to Cardiff is only about 700 miles—a shorter haul than from the Minnesota iron ore ranges to Pittsburgh. Unlike our highly specialized lake ore boats, the carrying of Spanish ore to English coal is done by ordinary tramp freighters of from 4,000 to 6,000 tons.

MINING METHODS

Figures 3 and 4 show the usual occurrence of the iron ore deposits and one type of transportation used in the mountainous section. For the most part the ores are close to the surface and may be mined by quarrying. In this respect they are thus seen to resemble the open pit mines of the Lake Superior district. However, the mining methods are in sharp contrast. A mountainous topography has in most of northern Spain, ruled out the standard gauge railway, likewise its cheap labor has prevented the wide use of the steam shovel. The ore is usually worked up

by hand with a mattock, shoveled into wicker baskets holding about 37½ pounds and carried by hand to be dumped into cars holding about six tons each. These cars may be run directly on a narrow gauge railway or the coal carried by aerial to the docks for loading the waiting steamers, or they may be emptied at a central point

FIG. 3. Typical open-cut iron mine in the Bilbao region

on the standard gauge track where a stock pile is accumulated. In the course of an eight-hour day the average laborer will load about three tons of ore. In 1920 the standard wage for unskilled laborers in the mines of northern Spain was 96 cents. So called "skilled" workers and underground miners received as high as $1.12. The cost of loading the ore with the steam shovel in the Minnesota mines at that time, in spite of high wages, was estimated to be less than one-third of that in Vizcaya.[5]

[5] Reported by H. C. Estep. *Iron Trade Review*, January 20, 1921

Markets for Spanish Ores

As indicated above, Spanish ore is produced primarily for export, the local iron and steel industry absorbing less than 10 per cent of the total output. Tho its markets are probably more widely scattered than those of any other iron ores[6] the great bulk has been normally (pre-war) taken by the United Kingdom and Germany. The distribution of the export ores in 1913 is shown

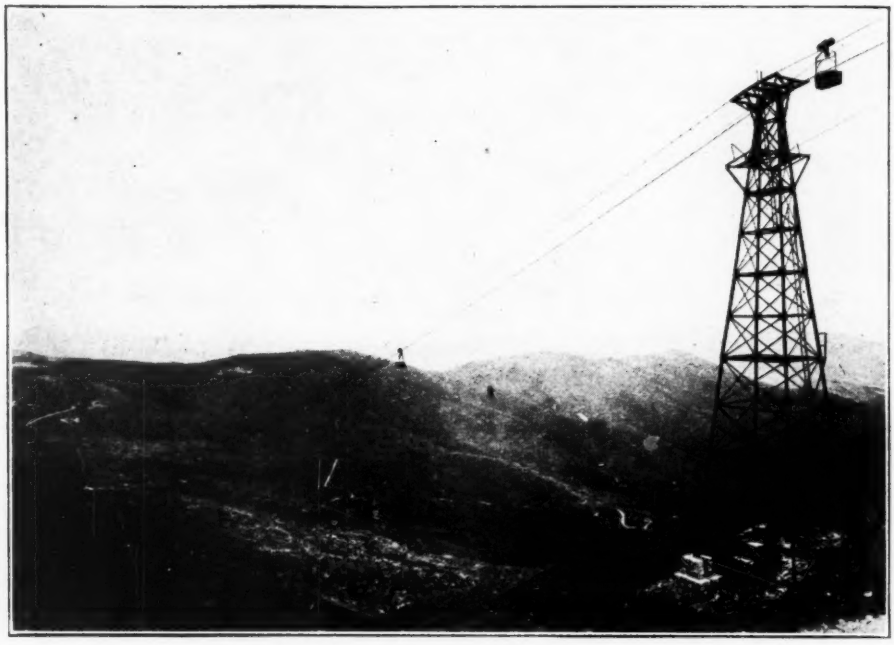

Fig. 4. Aërial ore transport line from the iron mines in the Bilbao region to the coast

in Figure 5. At that time Britain took somewhat less than 60 per cent while Germany was a purchaser of over 3,500,000 tons i.e., over one-third of the total Spanish export. Even the United States took some 90,000 tons, chiefly as a return cargo.

Trends in the Industry

As indicated in Figure 1 there has been a rapid and fairly continuous decline in both production and exports of Spanish ore

[6] For more than a quarter of a century Spanish iron ores have been a factor in the iron and steel industry of our own eastern coast. Here it competes with Swedish, Cuban, Chilean, Newfoundland and Lake Superior ores. It is brought largely by returning vessels which would otherwise be coming back in ballast

from 1913 to 1921. In the latter year the tonnage was approximately one-fourth the pre-war figures but in three years they had recovered to a volume double that of 1921.

Of the conditions responsible for the trend of the industry since 1913 some are temporary and will disappear with the restoration of normal conditions in industry, others are more permanent and demand serious consideration in their bearing upon the future.

Just as the industry in Spain has been operated chiefly by and for foreign steel interests so it is in these foreign markets that the explanation of the precipitous decline in the industry is to be sought. The war eliminated the Central Empires from the list of important customers for Spanish ore and in addition the war shortage in shipping greatly restricted the English market. Post-war demoralization in Germany and a series of industrial disturbances in Britain, together with the world-wide depression of 1921, brought the Spanish industry to an extremely low ebb. The partial recovery indicated since 1921 is due primarily to the passing of the general world depression and particularly to the gradual restoration of German purchases. The English market has remained still very much restricted due to a succession of strikes in the coal, steel and shipping industries.

A secondary cause of the drop in ore exports but one of far greater importance in its bearing upon the future of the Spanish iron ore industry is the approaching exhaustion of the better grade ores accessible to the north coast ports. Only thirty million tons of marketable ores in Vizcaya are estimated to be still available for export.[7] Even assuming that this amount is readily accessible, it would provide for but slightly over a decade's supply at the 1924 rate of exploitation.

Several developments indicating the coming shift in interest away from Bilbao are significant. There has been a gradual rise in importance of the iron ores in eastern and southern Spain, particularly in Tereul and Almeria. Tho rather inaccessible these ores are high grade. Likewise, British capital has acquired extensive holdings in Brazil. More ominous still is the competition of Algeria and Tunis. Ores from these countries are reported to be as good as those from Spain and the cost laid down at Cardiff

[7] H. M. Wolcott, Am. Consul at Bilbao in private communication to the writer under date of July 12, 1926

seventy-five cents per ton less than that of ore from Bilbao.[8] In 1923 Algeria exported almost a million and a half tons of iron ore, the most of which went to British furnaces. This was almost one-

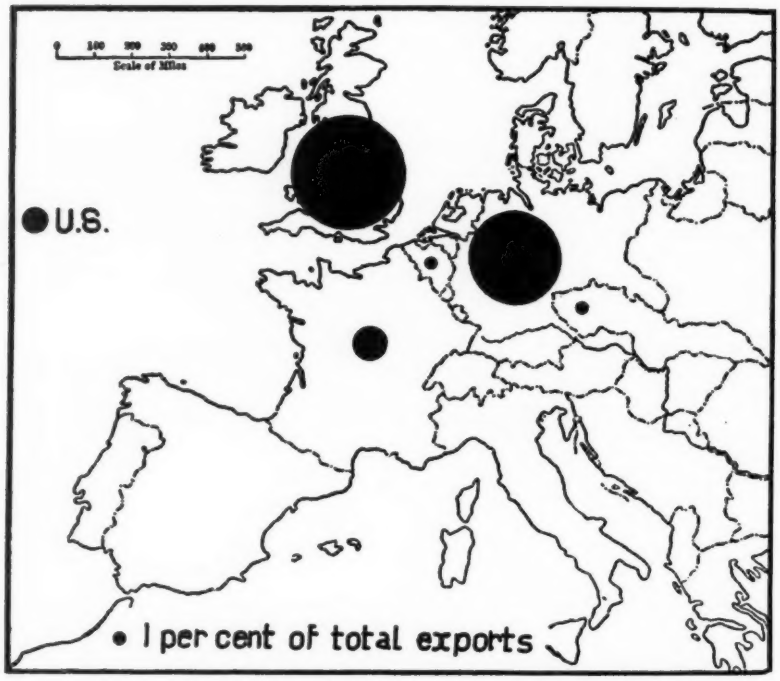

FIG. 5. Distribution of Spanish iron ore exports, 1910-14

half as much as the whole Spanish export for that year. In 1924 the Algerian mines increased their output over the preceding year by more than a third of a million tons and the prospects indicate a bright future for this region.[9]

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CONTRIBUTION OF GEOGRAPHY TO VOCABULARY*

G. T. RENNER, JR.,

University of Washington, Seattle

In 1511, Erasmus strongly advocated the study of geography as an aid to reading history and the works of the poets. School masters in general, supported the views of Erasmus and employed geography in illustrating and elucidating the classical writings. Especially did they advise their students to use it to provide them with copious phraseology and large impressive words in the themes and exercises which they wrote in Latin and Greek. Tho geography today is no longer used for any such crude or fantastic purpose, nevertheless it does still contribute to the student's vocabulary. Just how much of a contribution geography makes to vocabulary is not easily stated for the answer is contingent upon several factors whose importance is determined largely by personal viewpoints.

Any discussion on this topic may well be prefaced by two general facts:

(1) No subject can be studied without learning a new set of terms which belong peculiarly to that subject.

(2), Geography possesses fewer terms, i.e. less terminology and a smaller vocabulary exclusively its own, than does any other science.

GEOGRAPHY AND THE ADVANCED STUDENT

When it comes to this latter fact, geography suffers unduly, and because of it geography is in ill-repute in college and universities. College students, recalling their grade school geography, continually say, "There is nothing new in geography. Why should we study it in college?" This is said solely because geography gives to the student who embarks upon the study of geography no new set of terms with which to work. Students are always unduly impressed with a new and difficult terminology. The student who enters a beginning class in economics is immediately plunged into a maelstrom of utility, value, exchange, rent, capital, goods, etc. But the student who enters a geography course is met only with ordinary simple English words which bear no new connotations whatsoever

*Paper read before the National Council of Geography Teachers at Philadelphia, December, 1926

and hence he thinks he is getting nothing new. But he *is* getting something new, and as Dr. Reeder of Columbia Teachers College has pointed out, this is the idea of cause and effect. For geography, at every point, seeks to reveal the causal relations between the human world and the world of nature, but it does so in ordinary language not thru a special set of terms or a special vocabulary. As a result, most pupils are misled into thinking because they can read geography, and understand all the words they read, that they understand the content and reasoning involved. Nothing indeed is farther from the truth. Many students who have consistently received "A" grades in their previous courses, are rudely awakened to find that in geography they have received a mark of failure. Many students in such situations are furious and protest that they have read every bit of material in the course and have understood every word of it. In vain does the teacher try to explain that familiarity with vocabulary does not carry with it a mastery of the underlying ideas. For usually the student cannot understand that geography has something new in it in spite of the fact that its vocabulary was made up of old and familiar words. Prof. C. C. Colby has summed this up beautifully by saying, "Many can follow geographic reasoning but very, very few can contribute."

GEOGRAPHY'S LACK OF PUBLIC PRESTIGE

The question arises at this point—should geographers deliberately invent a system of geographic phraseology and terminology with which to express the ideas that are now expressed in homely language. Geography has now no due guards, pass words, grips and signs. Should geographers deliberately develop such? A new technical geographic vocabulary would certainly look more impressive to the layman and would immediately make geography an esteemed science in the mind of the general public. It would also make the advanced student think he was studying a profound subject. No longer would the general public believe it was getting geography when it reads the popular geographic magazines. Now, of course, every professional geographer knows that these popular geographic magazines are not geography at all, merely collections of beautiful pictures to which are attached some flimsy description and travelogue, but to the laymen there is no difference between a

book such as Peattie's "College Geography" and one of the popular geographic magazines because the same language, i.e., the same vocabulary, is employed by both.

But would it be advisable to create a new geographic vocabulary to give the student, merely in order to raise the prestige of geography? Geography teachers would probably vote "no" by a considerable majority because the disadvantages would undoubtedly outweigh the advantages. If geography be the study of the relations between man's activities and his environment, then geography becomes automatically the great cause and effect science and its major contribution to the child's education is in teaching him to reason from cause to result, in dealing with all practical affairs. But students from the third grade on up to the senior year in college show that they are usually completely unable to reason in terms of causality even where nothing but every day terms are used. It is certain, therefore, that the matter would only be made worse were a new terminology or professional vocabulary to be adopted; for if students do badly with familiar words, could they do better with a new vocabulary?

THE PROBLEM OF UNTRAINED TEACHERS

Geography's lack of a unique and impressive vocabulary causes that science to suffer in another way in addition to its general lack of public prestige. Its content is so non-technical and its terms apparently so easy to understand that school authorities usually consider any one able to teach geography and so the teacher of geography is frequently poorly trained and, indeed, often not trained at all in geography. School superintendents and principals commonly believe that no special preparation is needed for teaching geography. Since it is all plain English with no technical terms or formulæ, anyone with ordinary intelligence is considered fit to teach it. In many instances the superintendent or principal gives the geography class to the youngest teacher or the least busy teacher or to some teacher with a vacant hour—anything to round out the program.

The writer confesses that his first attempt at geography teaching came about in this way. No one else wished to bother with geography, so the superintendent assigned it to him, and needless to say the result was pitiful, altho satisfactory to the superin-

tendent. In fact, many teachers of geography will always carry the shame of their first attempt to teach high school geography at a time when they possessed no geographic training. In many cities of 100,000 or more population, geography in the high school is still taught by men or women trained in chemistry, physics, botany or English. In colleges and universities perhaps half of the geography courses are offered by geologists, economists or sociologists. Geography has been aptly called the "Cinderella of School Subjects."[1]

Were geography to acquire a comprehensive vocabulary embodying a complete set of technical terms and word concepts, no longer could that subject be assigned to the untrained teacher, and perhaps the quality of geography teaching would be quickly improved; but this might be a costly price to pay for trained geography teachers and it is to be hoped that they will be secured by educating the school supervisors to see the need for them.

GEOGRAPHY'S VOCABULARY

But in spite of its lack of a terminology comparable to that of other sciences, geography has made distinctive contributions to vocabulary, the first of which occurred when Eratosthenes of Alexandria coined the word "geography" itself about 200 B.C. About 175 A.D. Ptolemy added two other words, chorography (meaning regional description) and topography (meaning detailed local description). The early development of mathematical and astronomical tendencies in geography have left as a lasting heritage such words as equator, meridian, parallel, longitude, latitude, poles, tropics, etc. Since then, a few new words have been created but the general language of the science has, in the main, been formed thru taking common words and giving to them specialized meanings. During the last decades of the 1700's Humboldt and Ritter, two German geographers, originated the idea of the "environment" as a composite unit, and in addition coined the phrase "geographical controls." A few years earlier, Immanuel Kant had employed the terms physical geography, mathematical geography, political geography, theological geography, mercantile geography, hinterland, etc., terms which are in common usage today. Somewhat later,

[1] Chas. R. Dryer, "A Century of Geographic Education in the United States," Ann. Assoc. Amer. Geog., Vol. XIV, 1925, page 141

Ratzel gave the term anthropogeography to the general public. The French school has given us the familiar ideas of historical geography and regional geography. The English have contributed the terms geographic distribution, commercial geography, industrial geography, urban geography, geographical expansion, geographical responses, etc.

In the United States, Miss Semple has contributed the phrase "geographic influences" not only to geographers but to the general public as well. Other American contributions have been, human geography, journey geography, agricultural geography, social geography, areal study, land utilization, land economics, geographic relationships, geographic adjustment, and many other such word concepts which have greatly enriched the science. Very recently, Ellsworth Huntington has contributed the ideas of "climatic energy," "climatic pulsations," "weather variability," terms which have been adopted with surprising rapidity. W. D. Jones and D. S. Whittlesey have finally injected the idea of "types of climate" into popular geographic thinking, an idea which was formulated by the Moors in the eleventh century, developed by Humboldt in the eighteenth century and first worked out comprehensively by Herbertson a few years ago. These and many other words and phrases have been incorporated into the science, and today geography stands ready to contribute all of them to the common man's vocabulary.

Economic Geography

Geography has been regarded by many as a dull science but it is really the parent of many sciences, having given birth to geometry, surveying, exploration, geology, climatology, meteorology, etc. Economic Geography, or geonomics is the latest form of geography to appear and receive emphasis. It is essentially the study of the economic activities of man as they are related to the environmental factors of climate, soil, location, relief features, etc. These factors in the life of man are often taken for granted and held to be too elementary to demand systematic study, but with the growth of production, trade, population and competition the success of human enterprises clearly becomes a matter of more and more refined adjustment to these factors. In other words, man's problem becomes less that of conquering nature and more that of adjusting himself to nature. In this way, economic geography, because of

its practical value has come to be more and more emphasized. But it has been developed so rapidly that it possesses many important ideas for which we have no adequate descriptive terms. There are no words which will even name the seven great types of economic-geographic adjustments which man makes to the environment. In order to meet this lack, Professor H. H. Barrows has proposed that we coin the adjectives saxicultural, nemoricultural, besticultural and manufactural and add them to the three which we already possess—agricultural, pastoral and commercial. These would be an exceedingly welcome addition to geography's lean vocabulary and would render a distinct service to the science, but it is doubtful whether they will ever be adopted "en masse" because of peoples' linguistic inertia.

But economic geography is slowly making contributions to the student's vocabulary in another way. Students are learning about the daily life of peoples in other countries and are slowly becoming familiar with foreign words which express cultural concepts having no equivalent in English. They are becoming familiar with the products and wares which are flowing into America under foreign names. Likewise, the growth of trade has brought scores of new raw materials from the ends of the earth, furs, woods, tropical oil products, fibres, etc., most of which bear names drawn from foreign tongues, but which the student of geography, from the very nature of his study learns easily and naturally.

PLACE GEOGRAPHY

So far, the discussion has centered purely upon the professional aspect of geography's vocabulary but there is perhaps another side to the question, viz., that of "so-called" place geography. Place names and place locations are not, properly speaking, geography at all, for they belong to all sciences in common and indeed could exist apart from all science. If, however, "place location" be classed as geography and included in geography, as is commonly done, then the contribution which geography makes to vocabulary can become almost unlimited. For to every feature of the natural environment, every city and town, every body of land and water, every line of railway and every main highway there is affixed a name, a name recording something from the past. Every continent is sprinkled with ancient names drawn from the languages of its

aboriginal inhabitants. These exist side by side with names bestowed by later races of inhabitants. The races of explorer-peoples have added a third element to place names. In this way, Scotch names are distributed from the Mackenzie River in the Arctic to the McDonnell Range in the tropical desert of Australia. Similarly, English and German place names encircle the globe. But the story of place names is admirably told by Von Engeln and Urquhart in their little book called, "The Story Key to Geographic Names."

TRAINING IN DISCRIMINATION

But the greatest of all contributions which geography makes to vocabulary is in its teaching the student to use discriminating terms, to distinguish between major features and minor features; between large areas and small areas; between rivers and creeks; between forest, jungle, savanna, steppe and desert; between oceans and seas and lakes, between flat and rolling and rugged surface; between dense and sparse population; between agricultural, pastoral and manufactural use of land, and so on to great length. Lastly, it teaches the student how to use definite language which will express delicate ideas of relationship and exact shades of cause and effect, such as the relation between climate and position, between climate and relief, between climate and human enterprise and health, between climate and vegetation, between vegetation and animal life, between vegetation and man's occupation, between location and man's occupation and so on. And this, after all, is the main thing sought for, but the very process of achieving it automatically builds a satisfactory vocabulary for the students, for after all, a vocabulary is only the sum total of his word concepts which in turn are merely the external indications of his inner ideas.

"Geography not only is alive—it must take a new lease of life. If it is old and finished, then mankind is old and near its finish. Nor should the study of geography be left wholly to the specialist. It is a study open to all, free from the stuffy and forbidding technicalities of not a few other sciences and with rewards in enjoyment and practical usefulness."[2]

[2] The New Geography, Editorial page, *Saturday Evening Post*, January 1, 1927

A METHOD OF TEACHING REGIONAL GEOGRAPHY

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The plan of teaching regional geography here described, which has now been used for some time by the writer in university classes, was devised in the first instance to present an intensive regional course entitled "Geography of the Great Plains." This course had two objectives besides the one suggested by the title, viz., (1) to develop geographic technique, and (2) to illustrate a method of teaching the geography of a relatively small area. The latter object was considered important because the class was composed mainly of grade and high school teachers, most of whom were located within the Great Plains.

When the course of study was completed, many members of the class thought that this method of teaching a regional course could be successfully employed in their own classes, especially in the teaching of the home state.[1] At first the author was inclined to the belief that the method could be employed only in the teaching of a limited region: in other words, that it could not be used in the teaching of a continent. Later, however, it was found by actual experiment that the method is applicable to regions of any size.

The plan should recommend itself to teachers who believe (1) that it is good pedagogy to present the major features of the geography of a continent or region before studying its various subdivisions; (2) that geography is the study of the interrelations between man and his environment; (3) that these relationships are best shown by maps; (4) that map work on the part of the student is an essential part of geography; and (5) that students are being "spoon-fed" too much at the present time. The author himself believes in all these things. The scheme should also appeal to those many teachers who lack facilities for carrying on elaborate project work or, having such facilities, frequently feel the need of a novel change from that admirable method. Finally, the following notes may not be without interest to teachers who feel the necessity of confining class readings and discussion within

[1] The plan was used by Miss Ruth Margaret Smith in the sixth grade class of the Training School of the University of Colorado, with satisfactory results

a reasonable compass, in fact, to the generally accepted definition of geography. In these tenets also the author lists himself as a strong believer.

SOUTH AMERICA AS AN EXAMPLE

To make the discussion as practical and concrete as possible, let us take South America as an example and block out the plan of study followed by this method, assuming that the class meets about forty times.

At the first meeting the students are presented with (1) an outline map of the continent showing only the major subdivisions of each country (no physical features, rivers, or names), and (2) population data arranged by countries and states. Each country subdivision (variously called states or provinces in South America) is given a number, for a purpose to be explained presently. The white blue-print makes an excellent map for this study.[2]

The purpose of the numbers on the subdivisions is to aid in the ready transfer of data to the map, and also to induce the student to learn the state name on his own behalf. For example, the teacher prepares the population data[3] for Brazil in this way:

1. Para 370,000
2. Amazonas 370,000
3. Acre Territory 95,000

Etc.

Of course the number before the state corresponds with that state on the outline map. The data for Uruguay appear in a similar way:

1. Artigas 37,000
2. Salto 37,000
3. Paysandu 69,000

Etc.

[2] To prepare this, the teacher needs only to trace the map from a suitable projection (about twelve by eighteen inches is a good size) and have it duplicated at a blue-print shop. The ordinary charge for a copy is ten or fifteen cents, and each student needs only one. On the white blue-print the lines and figures appear in blue against a white background. The blue-printer makes a negative from the tracing so it is necessary to make the tracing on paper thru which light can penetrate

[3] Tables may be found in A. S. Peck, Industrial and Commercial South America E. P. Dutton Co

The pupils learn immediately that these data must be shown graphically in some way, since the figures when placed on the map give no clear-cut picture. Let them consult their texts and atlases in an attempt to find a method of doing this, and they may be allowed to pursue for a time whatever system they think is best. Let it be assumed that most of the students select a color scheme. In that case Para and Amazonas are colored similarly, while Acre Territory, which immediately adjoins Amazonas, has a different color. Then the teacher should show, if it is not already apparent, that this is not the best method because from Amazonas to Acre Territory there is only a gradual decrease of population—no sharp division along the boundary line. The population density, indeed, remains fairly constant. Another difficulty is apparent in the confusion of colors and the necessity of referring to the legend to determine what the colors represent. Indeed, this scheme has not helped matters much. Now the teacher explains the method of showing population by means of dots.

THE DOT MAP OF POPULATION

One of the most successful methods thus far devised for representing population distribution is the dot system. Good examples of dot maps may now be found in practically all geography texts, especially in Finch and Baker's "Geography of the World's Agriculture." Several are also shown in Whitbeck's "Economic Geography of South America." With a little practice, considerable facility in dot mapping may be attained by students.[4]

[4] The best pen for dot-mapping is the Barch-Payzant lettering pen, costing about one dollar each. If funds are available they may be made a part of the permanent equipment of the school, but if this is impossible, pen-points with round, flat points may be purchased for a few cents each. Black India ink is best. A scale should be adopted so that it may include the states of sparse population as well as the states of small size and dense population. It may be necessary to leave out the state of least population (or smallest production if an economic map is being drawn), in order to take care of the densely populated small state. It is essential to avoid a regular pattern in placing the dots, but permissible to merge the dots in the region of greatest concentration because the idea of the dot map is not to allow the reader to count the dots but to convey a picture, and of course one should show the place of greatest concentration. Round dots are best and may be made by touching the paper lightly with the pen point and lifting it quickly and vertically. It is best to determine the number of dots for each state in the country, writing in pencil that number on the map before attempting to complete the mapping for any one state. In short, determine the scale, determine and write in the number of dots for each state, and then proceed with the mapping

In constructing a dot map of the distribution of population in South America, the students will find it necessary to consult their atlases in order to learn in what parts of the states to concentrate the dots. This means, of course, determining the location of the chief cities, and also the rivers, especially in their lower reaches. This, obviously, teaches place geography and makes the students familiar with the major physical features of the continent. Mistakes will very likely be made, but as the student learns the continent better such errors may be corrected and at the end of the course a very careful map can be drawn.

How the Population Map is Used

The map is now complete. The class has started out its study with a tangible thing: the location of people in South America. Not only is it a tangible thing, but it is full of interest because the continent has been approached from the human view-point. Moreover, they have learned a certain amount of place geography and have become familiar with the major features of the continent.

During the construction of this map, the students can hardly have escaped wondering about the facts presented. Why is there a dense population in the interiors of Columbia and Ecuador and a sparse population along the coast? This is not often true. Why do so many people live in central Chile and so few in the north and south? What accounts for the sparse population in the Amazon region?

In trying to answer these questions, the students immediately realize that they must know more about the physical environment. This leads to the next step, namely, mapping the natural environment.

Any feature of the environment may be studied first, but it has been found that the mapping of the natural vegetation makes a very appropriate first step. This is true because natural vegetation shows the inter-actions of climate and topography and leads once more to a concrete starting point. The procedure in our classes has been as follows: The students are given sheets of tracing paper of the same size as the original map, on which they draw in the coastlines and the boundaries of the countries. Then *on this traced map* they transfer from a wall map or a map in the text the natural vegetation as carefully as they can. When the

natural vegetation map is completed it is superimposed on the population map, and the students may readily determine any relationships which exist between people and natural vegetation. Some relationships are those which would be expected, others are quite paradoxical. Frequently there is no relationship.

Indeed, students will soon find that natural vegetation alone does not explain the distribution of population in South America. Accordingly, in the same manner as before a map each of annual rainfall, topography and minerals are drawn on other sheets of tracing paper and each superimposed similarly upon the population map. With this set of maps the student is enabled to find adequate reasons for the dense and sparse populations in different parts of South America.

It has been found a good plan, even in mature classes, to stimulate wholesome rivalry by displaying the best maps of each set. Altho there has not been much time for outside readings so far, it is a good plan to assign a small amount of good reading on the continent as a whole. In all probability the members of the class will seek these readings on their own account if the books are placed before them. The dot map is not essential to the method; any system of mapping which conveys to the eye a definite picture of distribution will, of course, be satisfactory.

THE MORE DETAILED STUDY OF THE CONTINENT

This study of the continent as a whole should take at least ten lessons and possibly more, depending upon the interest and skill of the class and the amount of drill needed upon the various topics. The next step is to study some part of South America in more detail. It has been found a good plan to let the class vote on what part to study first and to proceed with the section in which there is the most interest.

Let it be assumed that the majority wish to study the Republic of Argentina. The students should now construct a more accurate population map of Argentina. A larger map is desirable but not necessary. Then they are given economic data such as the production of wheat, corn, sugar cane and the distribution of cattle and sheep, and possibly data for manufacturing industries. The data are given to them in the same way as the population figures: by numbers which correspond with the state numbers on the map.

A separate dot map for each product should now be constructed on tracing paper, all this occurring *before* much is said regarding the underlying geographic conditions. (This again is suggested in the interest of concreteness). They have before them now the product maps, the natural environment maps and the reconstructed population map. Questions arise: Why sugar cane in Tucuman and Jujuy? Why tobacco along the coast near Buenos Aires and then again in the West along the Andes slopes, with little in between? Why so many vineyards along the Andes also? Of course most of the reasons can be deduced from the maps, but students will need also to consult texts and reference books, not forgetting also that many human factors are involved.

When Argentina is thoroly mastered, of course another state or region is open for study. All other regions need not be studied in this way; too much map work is as bad as none at all. Hence it is a good plan to adopt, for a time, some other scheme which yields similar results. Two or three other countries should, however, be studied in this exact fashion.

Thruout all this work there is abundant opportunity to introduce pictures which illustrate the facts being studied.

A Possible Difficulty and How to Meet It

The chief difficulty with this method is securing the data on which to base class work. This is not so hard to overcome as it first appears. For the three leading countries of the continent complete data are available. The yearbook of Argentina is entitled "Estadistica Agricola," and may be found in large libraries and at the library of the Department of Agriculture in Washington. Local libraries may borrow from others for a short time. The corresponding production for Chile is "Annuario Estadistico de la Republica de Chile." These publications are written in Spanish and the metric system is used in the tables, but it is not difficult to find the meaning of the few words necessary and to convert hectaras into acres and qq. m. (hundred kilograms) into pounds or tons if this is deemed advisable. Brazil's publication is "Annuaire du Bresil Economique." With data for these three countries one can do very well without the rest. In the event that it is impossible to obtain these publications there is still another way, even tho it entails some work. In the texts and atlases which

contain dot maps, one can count the dots and multiply by the number of acres, pounds, or individuals which each dot represents, and come very close to the true figure for each state. Economic maps of other types may be used in a similar fashion. The writer has found this quite satisfactory except where the dots are merged. In a study of Europe the problem is reduced considerably, and for the United States the data are available practically everywhere.

PRINCIPAL ADVANTAGES OF THE METHOD

This method is sound from the educational standpoint because it proceeds from known facts—i.e., (1) facts of environment and (2) distribution and amounts of production—to the unknown, which is the relation between 1 and 2. It also proceeds from the concrete to the abstract. The method catches the interest of the students from the first because the maps and discussions center around human life and its conditions. It obviates elaborate preparations for projects because the motivation to study is supplied by the maps drawn. The method introduces exactness into the study of geography. It also makes students strive to do careful map work because of competition with each other. It makes students learn almost unconsciously and even against their will, perhaps, those things which are considered fundamental in geography, such as the names and locations of important states and cities, and the size and shapes of countries. It does this not thru the mere exercise of memory, but because of practice in map-making and because there is a reason for learning these things. The method allows the student to find out things for himself, not merely to repeat in class what is read in the text. It does this because it presents problems in a concrete way. It allows the capable students to elevate themselves far above the average, because it gives room for originality. It is applicable to all regions of whatever size. It may be used either alone or in conjunction with other study plans. It may be used in all grades of students, with proper modifications. Finally, this method confines the scope of class geography to geography, whether it be defined as the effect of environment on people, or the interrelations of physical environment and man, or the adjustment of man to his physical environment.

SOME GEOGRAPHY CORRELATIONS IN FOURTH GRADE

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In the October *Journal,* 1926, Maude Cottingham Martin states that, "The field of geography lies between the domain of natural and social sciences." In the platoon organization it is placed in the social science group with the intenton of correlating the more definite phases of nature study, geography, and history and citizenship.

In the first three years, nature study furnishes the basis for most of the activities in this social science group; in the fourth, fifth and sixth years the geography is stressed, and in the seventh year history is the nucleus around which other phases of social science work are correlated.

The following is a selection from a report made by the author and his committee on "Social Science for Platoon Schools, With Emphasis on Nature Study Correlations," for the schools of Kansas City, Missouri. The selection is an abridgement of the report for fourth grade.

MINIMUM REQUIREMENT IN SOCIAL SCIENCE FOR FOURTH GRADE

I. Geography, Book 1
   1. Men and trade
   2. The earth as a whole
   3. United States and North America by regions
   4. Life in other lands, or continent study

II. Social Science and History
   1. At least two auditorium programs on men prominent in development of our country
   2. Early explorers—Columbus, Magellan, Cabot, DeSoto, Marquette
   3. Colonial period—Captain John Smith, Miles Standish, Henry Hudson, William Penn
   4. Later contributors to the nation—Daniel Boone, Captain Clark, John James Audubon

III. Nature. Study the following phases of nature. Carefully prepare and carry out at least two auditorium programs dealing with nature study.

a. Our forests—forest trees, forest animals, forest life. Human activities in forests
b. Arbor Day—tree planting and forestry
c. The sun and the wind

PROBLEMS OR QUESTIONS

Problems or questions are raised for the purpose of stimulating an interest in nature subjects related to geography. (The tentative statements and subdivisions of the problems furnish the basis for investigation and class discussions.)

Query 1. What collections can we make to illustrate subjects mentioned in geography. (Collection continued thruout the year.)

1. Collect seeds raised on the farm
2. Collect seed-foods from trees, nuts, etc.
3. Collect samples of ore and rocks
4. Collect samples of cotton, wool, silk
5. Dress dolls in costumes of different lands
6. Collect samples of wood
7. Collect and mount leaves of our forest trees
8. Make blue prints of leaves, spatter prints and plaster casts of leaves and color them

Query 2. How did the Indians and early pioneers make their living by hunting and trapping?

1. The woods is the home of many animals.
   a. The bear, wolf, fox, marten, lynx, raccoon, beaver, muskrat, elk, and moose live in the woods. Use pictures.
   b. The hunters and trappers first learned the habits and homes of these animals. Nature stories about habits of animals
2. Winter is the best time of year to trap animals.
   a. The pelt, or fur, is then thick and tight.
   b. Animal tracks are easily seen in the snow. Find and identify tracks.
   c. Food is scarce in winter and bait is inviting.
   d. Men trap all winter, storing the furs.
   e. A great many traps are set, extending for miles, usually near a stream.
3. In the spring the trapper takes furs to the market.
   a. Furs are taken in boats and on wagons to trading posts.
   b. At trading posts supplies for the coming season are purchased.

AUDITORIUM PROJECT-PROGRAM

A Dinner Meeting of the Wild Folks Club

Children impersonate different wild animals of their home region, and hold a dinner meeting in which they discuss various matters relating to their treatment by human beings. They have a chairman and speakers. For instance, the fox has much complaint to make concerning his treatment by human folk, he tells of his many troubles, the many kinds of traps and dogs and hunters. The little chipmunk, however, is well pleased with the world and declares that human beings are not so bad. He tells about the corn that the farmer sometimes throws out to him, and that children do not try to drive him away. Other animals give their opinions and experiences. They discuss the reasons for the kind of treatment they receive from human folk, etc. etc. Appropriate food for the various animals is displayed on the table, waiters pass along offering the dishes to the animals. If the food is not appropriate to the animal, the animal politely refuses. Thus the preparation for the program calls for a careful study of the food habits of the animals, their economic value, their homes and other characteristics.

Query 3. How could hunters and explorers find their way?

1. Finding the Big Dipper will help to find the North Star.
2. The position of the sun helps us to know direction as well as time of day.
   a. Observe the sun at different times of day.
   b. Make a sun dial marking the face of a clock on a piece of paper and placing a long needle in the center. Place the clock so that the shadow of the needle falls on XII, at noon.
3. Woodsmen tell direction by observing the bark on trees.

Query 4. How are our "woods" different from the great forest of the Northwest?

1. The forests of our home region are usually made up of a great variety of deciduous trees. What are these trees, and how may we know them?
2. The forests of the Northwest are composed of a few varieties of evergreen trees. What kind, and their distribution?
3. The forests of the Northwest furnish most of our lumber.
   a. Get samples of fir, redwood, yellow pine, hemlock, cedar, and find some uses of each.
   b. Get samples of oak, hickory, walnut, elm, maple, cherry, sycamore and find some uses of each.
4. Our woods have many shrubs and vines and flowers. Try very hard to see and handle and admire and know the more common and attractive shrubs and vines and flowers in our woods.

AUDITORIUM PROGRAM
(Adapted from Cycles in Garden Life)

Song
Poem. The Brave Old Oak. Chorley
Art. Dance of the Nymphs. Corot
Nature. The Life of a Tree (See Primer of Forestry Part 1 by Pinchot. Choose some one tree, as oak, hickory, or pine and trace its life from seed to veteran.)
Poem. Planting of the Apple Tree. Bryant
Song. The Tree. Gaynor

Query 5. How does air help us?

1. Air supports life.
   a. Plants and animals cannot live without air.
   b. From our lungs the oxygen of the air enters the blood.
   c. The air, or atmosphere, is the outer part of the earth.
2. The wind works for us.
   a. The wind carries away dust and smoke.
   b. The wind moves sail boats and turns mills.
3. The wind helps to bring rain.
   a. Heat causes water to change to vapor.
   b. Vapor is taken up into the air.
   c. Cooling vapor causes it to change back to water. Vapor may change to clouds, fogs, mist, dew, and, by freezing, into snow and frost.

NOTE: In discussing these problems use experiments, as: evaporating water; condensing vapor by adding ice to a pitcher of water. Also make observations out of doors relative to clouds, dew, frost, etc.

AUDITORIUM PROGRAM—THE WIND AND THE SUN
(Adapted from Cycles in Garden Life)

Song. Good Morning, Merry Sunshine. Poulsson
Nature Study. Heat and its relation to evaporation
Poem. Wake, Says the Sunshine. Poulsson
Nature Study. Distribution of moisture
Poem. What the Wind Brings. Stedman
Story. The Law of Winds. Greek Myths. Edson Reader, II
History. Wells and Windmills on the Farm
Poem. The Wind Mill. Longfellow
Play. The Lad Who Went to the North Wind. Fox's Second Reader

THE HUMANIZING OF GEOGRAPHICAL KNOWLEDGE

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CRITERIA OF VALUES

In his admirable treatise on "The Humanizing of Knowledge," James Harvey Robinson sets as his criteria of the value of science, first, the engendering in the student of "a discriminating and exacting tendency of mind—that combination of open-mindedness and caution which should be the finest fruit of successful scientific training," and second, the fostering of "such a lively understanding of the workings of nature that the fascination of discovering ever new wonders will endure thru life and mitigate sorrow, boredom, and disappointment."* In order to realize these values he proposes two ways. In the first place, human knowledge is "to be so ordered and presented in school and college as to produce permanent effects and an attitude of mind appropriate to our time and its perplexities." In the second place, human knowledge has to be "democratized," that is, it has "to be popularized and spread abroad among adults who have become dissatisfied with what they know and are eager to learn more."*

These objectives require a better method of teaching, and the writing of more readable textbooks, treatises and magazine articles by men of science. The first is a challenge to the educator whose sole function is to engender in the youth the best of what has been known and thought about to the end that their lives may be more fruitful and more rich. The second is a challenge to men of science to make their style more attractive, their language less technical, and their organization psychological rather than logical. In other words, men of science should realize the training and interest of their readers, and so present and organize the material to be taught around their interest and training and not around the subject itself.

OBJECTIVES IN TEACHING OF GEOGRAPHY

It is the purpose of this paper to apply Robinson's criteria to the teaching of geography. At the outset it might be said that it is the aim of the study of geography to give an understanding

* P. 83.

of physical conditions and natural resources as the material basis of social development by showing the relationships that exist between man and his physical environment. To this end the study of geography must (1) lead different people to a realization of the influences of their respective environment; (2) lead to the discovery of geographic principles which would make man aware of possible modification of his behavior for better adaptation; (3) make people realize that differences in temperament, character and achievement result, in part, if not very largely, from differences in natural environment—such realization helping to promote a sympathetic understanding of peoples in that it affords a key to the explanation of characteristics and attitudes of different peoples that are likely otherwise to be misunderstood; (4) the study should make men of different races and nations conscious of the fact that each race, however backward it might be, has contributed and will continue to contribute to the sum total of human welfare which we call civilization.

If such values when engendered lead the young to an attitude of open-mindedness, discrimination, and exacting tendency of mind, the science of geography becomes "humanized."

How Objectives in Geography May be Realized

Having set down the theoretical aspects in the study and teaching of geography the next important problem is to discover how these values may be realized. It has been suggested as a keynote to the successful teaching of geography, and any subject, for that matter, that the material be so organized and presented that it may appeal to the pupils as something vital to their interest, something which enlists their curiosity and attention at the outset, and not merely something that they study because they are sent to school. The interest, in other words, is not due to sugar-coating, nor is it due to an external motive, such as that of satisfying the teacher. It is only when the facts included are intrinsically valuable to the pupil in his everyday life that they are learned for their own sake, and it is only when the facts are learned for their own sake that the activities thereby engaged in are intrinsically and genuinely satisfying.

Along with the psychological presentation of material there must be a psychological arrangement of subject matter. First of

all, geography textbooks should be written more simply, that is, the vocabulary should be less technical. Secondly, the material should be organized around the pupil's interest and not around subject matter. Geography as it is organized in the hands of experts is logical and complete. It represents years of labor and research by men who have made it a special field of study. To demand that the pupil learn it in a year or even less is not only unjustified but an impossible task. For example, some texts in geography begin with a definition of the "earth as the home of man." Then they proceed to the description of the earth, its divisions into hemispheres and then into continents. After the continents are studied in general they are subdivided into countries, and each country is studied rather extensively as to its features, resources, products, peoples, etc. Thus each country is dealt with as a unit. The interconnection and interrelation have been made clear by the writer, but that is no guarantee that such material is assimilable, and can we be assured that the facts are organized and integrated so as to make possible application and generalization?

The above consideration, must not, however, be taken to imply that the writer is in accord with the most revolutionary tendency in teaching local geography and letting the matter suffice at that. There is as much danger in such a procedure as in pure deduction. To be sure, the study of the immediate environment is important, but merely to learn certain things about one's locality, such as its commerce, its climate, its location, its topography and resources, is not the best in geography. Knowledge resulting from such a study, however detailed and interesting, is empirical and does not result in an insight into the great laws of geography. That is, the laws and principles are not touched upon, because the individual is limited to the study of facts of his immediate environment. Whereas the deductive or logical method emphasizes a comprehensive view of the earth and thereby overlooks the learner's immediate interest and environment, the purely inductive method lays stress upon immediate environment of the pupil but overlooks the more remote regions and peoples. The first leads to purely technical training, i.e., training for research, provided it be pursued long enough, while the second results in nothing but the learning of a collection of facts without a comprehensive view of the subject as reflected in knowledge of laws and principles.

THE ULTIMATE GOAL—PROVISION FOR LOGICAL ORGANIZATION AND PSYCHOLOGICAL PRESENTATION OF SUBJECT MATTER

The goal should include both values. The aim should be maximum logical organization of knowledge, and yet it must reflect social needs and illuminate the pupil's experiences. The method of presentation and the system of organization must bridge the gap between purely technical information and social insight. To the question whether or not technical knowledge of geography is important, the answer is decidely affirmative. But to the further question whether or not technical knowledge may be best assimilated as logically organized in the hands of experts the answer is decidedly negative. It has been shown above that such a method would result in mere memorizing of facts in the narrow span of time that geography is taught. That is, the information cannot be assimilated so that it may be used and applied in the individual's remaking of his world. To the extent that logical organization of subject matter is achieved gradually so that it enables the individual progressively to use his knowledge to understand better his environment, physical and social, to the end that he can better adapt himself to them, knowledge becomes "humanized."

GEOGRAPHICAL PUBLICATIONS

Richard Elwood Dodge and Earl Emmet Lackey. **Elementary Geography.** 338 pp., 361 maps, diagrams and photos. Rand McNally & Co., Chicago. 1927.

This book is a worthy successor to the Dodge geographies. It is divided into three parts; Part One, Home Geography; Part Two, World Relations, and Part Three, The Continents.

The term "Home Geography" is somewhat misleading as this part of the book is really a "geography for beginners." There is a presentation of the homes of the Bedouins and the Eskimos, which, by contrast, helps the child to appreciate his own home. There is a discussion of different physical phenomena, as soils, relief, winds, and weather, that affect man, and the activities in which man engages. The articles are very simple and interestingly written. A general home geography, however, is not very effective unless used merely as a means of reënforcing the local materials. More detailed suggestions for relating the topics to the local area would be helpful.

Part Two, World Relations, introduces the pupil to the shape of the earth and its representation with a globe. The distribution of continents, oceans, and climatic areas, is presented in broad outlines, and some conception of the products contributed by each continent is given. The pupil secures a general notion of the earth that he will study in a detailed manner in Part Three. It is probable that some of the material

contained herein can best be presented on the basis of need in connection with the continental studies.

Part Three is a detailed study of continental regions. The integrating centers are primarily political units with incidental reference to geographic provinces. The authors, in general, have succeeded in selecting the more important geographic relations of each region.

The maps are excellent and the pictures have been carefully selected. The importance of picture study is emphasized by accompanying descriptions and questions. At the beginning of each new topic is a list of "Some Things to Learn." The pupil thus reads with a purpose instead of for anything that he can find. Here and there are "Some Related Problems" and "Some Things To Do," which provide an opportunity for creative thinking and doing. While descriptive geography dominates, the problem factor is frequently introduced. Many of the captions, as "Los Angeles: City of Sunshine," "Ecuador, the Land of Volcanoes," and "Chile: the California of South America," will arouse the curiosity of the child. Unless the book is skillfully handled, causal relations will be inadequately stressed. An excellent classified list of supplementary books, to reënforce the textbook, is provided.

The book compares very favorably with its competitors in the field of elementary geography.

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Edith P. Shepherd. **Geography for Beginners, Book II.** 196 pp., numerous maps and pictures. Rand, McNally & Co., Chicago. 1927.

Geography for Beginners, Book II, by Miss Edith Shepherd, is a physiography designed for use in the fourth grade. It makes extensive use of the first and second persons, and closely relates the physiographic items with the child's experiences. The use of 12 point type in printing is one of the commendable features of the book. The pictures are well selected to illustrate different physiographic facts. The trend today is away from physiography to human geography; because of this, the peculiar function of this text would be to serve as a supplementary text. Teachers who have difficulty with the important physiographic principles would find the book helpful.

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SOUTHERN CONFERENCE OF GEOGRAPHY TEACHERS

A conference of geography teachers of Southern colleges was held at George Peabody College for Teachers, Nashville, Tennessee, April 1 and 2, 1927. The problems under consideration were the geography curricula in the high schools; geography curricula for teachers' colleges and required courses for teachers' colleges; professionalizing geography courses in teachers' colleges; geography in academic institutions, and advertising geography in the South. The leaders in the discussion of each of these topics made reports of their special investigations, some of which had been going on for months.

The report of the Committee of the National Council of Geography Teachers on the curriculum for the Junior High School was discussed at great length and accepted in the main. The conference recommended an elective course in geography for such Senior High Schools as have the necessary library facilities for presenting a course adequately. The objectives and content of a suggestive course were outlined.

Financial and other arrangements were made for the publication of the papers and discussions of the conference, and the mailing of the report to every school administrator in the South.

Southern geography teachers participating were as follows: Myrtle Grenels, Farmville, Virginia; Lida L. Davis, Athens, West Virginia; L. T. Tustin, Athens, West Virginia; Mary McKinney, Richmond, Kentucky; Ella Jeffreys, Bowling Green, Kentucky; Miss Lawrence, Bowling Green, Kentucky; Floy Robbins, Murry, Kentucky; R. W. Johnson, Memphis, Tennessee; Corinne Cavert, Nashville, Tennessee; Ina Yoakley, Johnson City, Tennessee; Thomas E. Clark, Florence, Alabama; Susan J. Price, Florence, Alabama; M. L. Orr, Montevallo, Alabama; Fred Arnold, Troy, Alabama; Lilla Bolton, Hattiesburg, Mississippi; Selma Abrams, New Orleans, Louisiana; T. K. McKnight, Baton Rouge, Louisiana; Harriet Smith, Huntsville, Texas; L. G. Kennamer, Abilene, Texas; J. S. Gibson, Abilene, Texas; Will T. Chambers, Nacogdoches, Texas; A. E. Parkins, Nashville, Tennessee. The conference was open only to geography teachers who were registered members of the conference.

A Southern Council of Geography Teachers was organized. A. E. Parkins was elected president and L. G. Kennamer secretary. The next meeting of the Southern Council will be an informal dinner and will be held in Nashville some time during the meeting of the National Council of Geography Teachers in December, 1927.